

Conversations with Mr. Joshua Lathrop  
at Norwich Church: July 25, 1761

Ind Town East of the  
Road 4 M or  $3\frac{1}{2}$  from  
Landing

Ben Town & In Town  
are half a mile or so of tother  
on East side the Road, which  
runs about 1 Mile West of the  
River at Mohegan

Ben Uncas, Sachem of the  
Mohegan Tribe has under  
him about 20 Wigwams  
on N. Y. & the N. E. of. Souls at  
the present, more probably  
not above 60 some

Trading Post Brook where the  
Road crosses it,  $3\frac{1}{2}$  Mile  
below Norwich Meeting. This  
brook the dividend line  
between N. York & Norwich

10 Jan 20  
N. H. A. N. C.



# Naturalist Notebook

11

FEBRUARY 1973





# Naturalist Notebook

FEBRUARY 1973 VOLUME 9 NUMBER 2

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## **Cover:**

Map of Thames Valley, 1761. From the collection of the Indian and Colonial Research Center, Old Mystic, with our sincere thanks for their permission for this reproduction.

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# STONES BONES AND BEHAVIOR:



the natural history of an archaeological dig

by June Macklin

In our present concern to solve social and political problems, we need to understand what manner of creature is this *Homo sapiens* ("man, the wise"?). Student, layman, and anthropologist alike share a new enthusiasm for the "proper study of mankind," man himself, past and present. Anthropology has been defined as the study of man in the broadest sense, including both his physical and cultural aspects; archaeology has been called the anthropology of extinct peoples.

But archaeology *is* excavation and can be learned only by digging. So you can imagine my excitement when Mr. Frank Malloy (a member of Connecticut College's physical plant staff for many years) told me that he had been collecting projectile points, stone knives, and other artifacts near Harrison's Landing since his childhood. Having been fascinated by Indians all of his life, Mr. Malloy had followed the plows during his youth, picking up the treasures being uncovered, and

has continued to do so. He added that he knew of an area where there were rather extensive shell middens (actually, garbage heaps from many prehistoric meals), should we like to investigate further.

We ventured a few test pits in December of 1971 before inclement weather forced us to abandon the project until April of 1972. Then the Department of Sociology and Anthropology at the College enlisted the cooperation of Dr. Douglas Jordan, archaeologist for the State of Connecticut, who helped us to lay out the site and to begin excavations—and we have slogged on throughout the wet, wet 1972 season with muscle power provided by eager Connecticut College students.

No two sites are exactly alike and each must be approached as a unique problem. There also are various methods for excavating, collecting, recording, and interpreting data. I shall refer briefly to those techniques which we are using on our site.



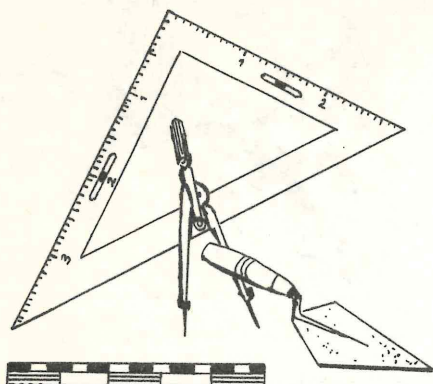


Figure 1. Tools used in an archeological dig. From top: triangle with enclosed spirit levels for use in locating artifacts, calipers, trowel for digging, rule.

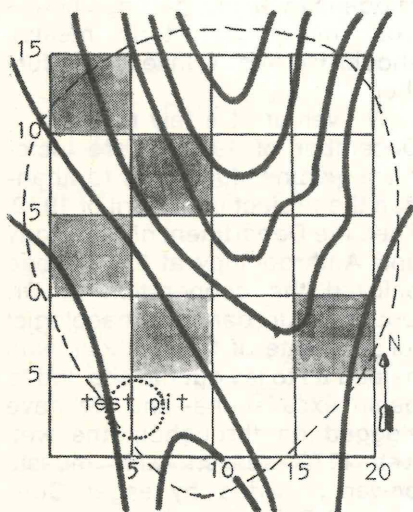


Figure 2. Map of site, providing the following information: location of test pit, grid plan, size of grid units, surface contours (dark lines), orientation, areas excavated (shaded). The presumed limits of the site are indicated by dashed lines.

The basic unit of archaeological study is the *site*, which is given a number. Ours is 6-NL-43: the "6" indicates the position of Connecticut in an alphabetized list of the states (Hawaii and Alaska were added upon their admission to the Union as "49" and "50"); "NL" tells us that the site is located in New London County; while "43" lets us know that it is the forty-third site in the County to be surveyed and recorded.

Dr. Jordan established a datum point (the control point to which all measurements refer and which is shown as the "O" in the accompanying site sketch, Figure 2). The datum point must be marked in some permanent way, not only for mapping and excavating, but also in order that anyone could return to the site at any time in the future, understand our excavation reports in detail, and continue the work should he wish to do so. The site then was laid out in a grid system of 5-foot squares along north-south and east-west intersecting axis. One can use a lensatic compass or a pocket transit for making these ground measurements. Pointed wooden stakes were driven in at each corner of the squares; each square is labeled according to its position relative to the datum point.

Each of the 5-foot squares is plotted on graph paper in order that each find can be located exactly according to its position within the square, its depth, and its relation to the datum point. A measuring triangle with bubble levels, or a plumb bob, may be used for determining the precise location of the object (Figure 1, 5). The exact location of each cultural element is important in



reconstructing the lifeways of the humans who produced them, for the goal of the "new" archaeologist is to ask questions about the total round of life, including economic, domestic, religious, social and political aspects, and the relationships among them. Therefore, a carelessly collected artifact is practically worthless in answering the most meaningful questions about how man lived and what the processes of cultural change and stability were.

Equipment for the excavation itself can be simple. We are using pointed, sharpened mason's trowels in order to remove 4-inch levels of soil at a time, and are doing this in alternating squares which leaves the checkerboard effect depicted by the shaded (excavated) areas in the sketch. Such trowels not only permit careful scraping and scooping, but also provide a cutting edge for roots—which are plentiful in this particular site!

All objects found in each 4-inch level of each square are put into the appropriate "level" bag marked with the site, the square, the level, the depth, the matrix, the date, and the excavator's name. Once back in the laboratory, the levels of each square can be reconstructed carefully and accurately.

Much more could be said about how to excavate, but since archaeology really consists of putting techniques into practice, you learn—as we are learning—by reading and digging, and reading and digging some more. Useful reference books are: James Deetz, *Invitation to Archaeology*, (Garden City, NY: The Natural History Press, 1967), and Robert F. Heizer and John A. Graham, A

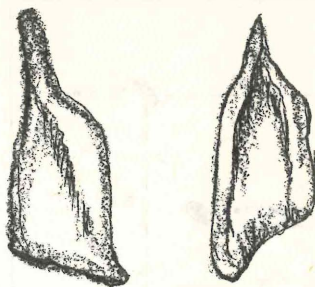


Figure 3. Bone awls found in New London dig, approximately three-fourths size.

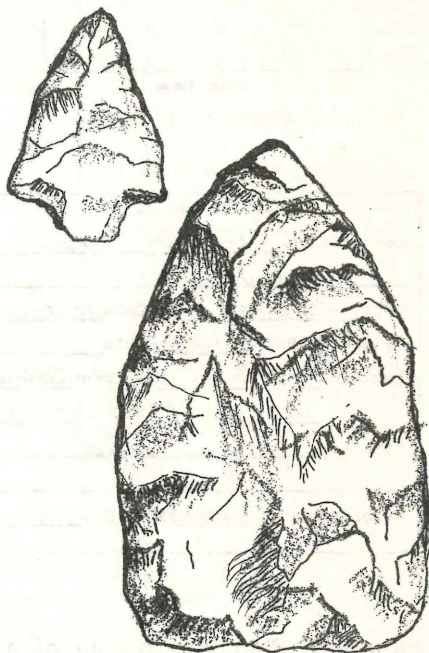
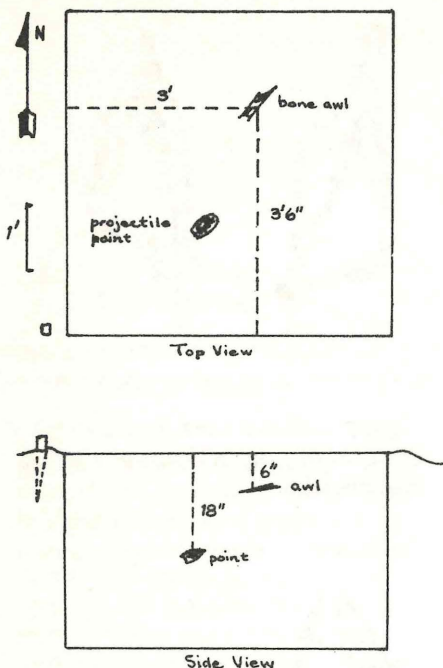


Figure 4. Projectile point (left) and scraper (right) found in New London dig, approximately two-thirds size.



Artifact Record	
Description	<u>bone awl (complete, about 2" x 1")</u>
Site	<u>6 N4 43</u> Date <u>13/11/72</u>
Pit or Tr.No.	<u>10N/OE</u> Depth <u>6"</u>
Location	<u>3 ft. 6 in. N of Datum SW Corner</u>
	<u>3 ft. 0 in. E of Datum SW Corner</u>
Remarks	<u>plowed topsoil</u>
Recorded by	<u>BG Moffine</u> Field No. <u>1-8</u>

Figure 5. Plan and profile of a 5 x 5-foot excavation unit showing the method of locating artifacts in three dimensions, and an Artifact Record Form containing information on one of the artifacts. This unit represents the unit 10N/OE of Figure 2.

*Guide to Field Methods in Archaeology* (Palo Alto, Ca.: The National Press, 1967).

As you can see, archaeological excavation is painstaking and time consuming, but also very rewarding. In addition to the numerous stone tools which Mr. Malloy has collected from the surface, we have found projectile points of white quartz, quartzite, and flint (Figure 4); some worked bone including the awl shown in Figure 3; and oyster, mussel, and clam shells. At this preliminary stage, we must compare our results with those types of finds reported from other areas. It appears that we are turning up examples of artifacts from what has been termed the "Late Archaic Period," which *could* be 4000 to 4500 years old.

The archaeologist then is the anthropologist who digs up the material remains of past cultures and attempts to reconstruct life-ways of the people who left them. In this way, the archaeologist hopes to understand cultural systems at different times and places around the world, and, therefore, gain a broader perspective on his own time and place.

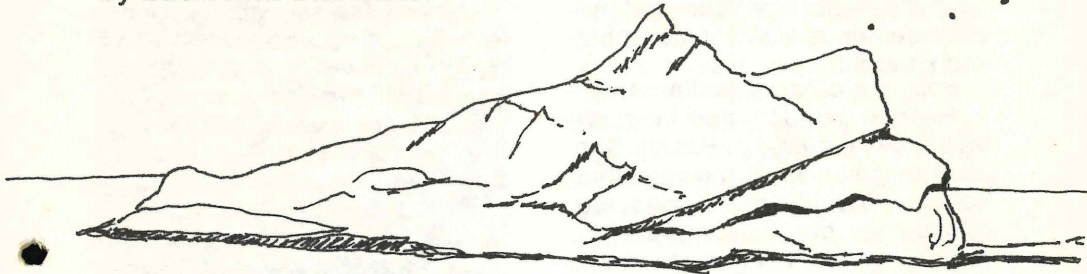
. . .

June Macklin is professor and co-chairman of the Department of Sociology and Anthropology at Connecticut College. She has co-authored a book with Ward Cannel, *The Human Nature Industry: How human nature is manufactured, distributed, advertised, and consumed in the United States and parts of Canada*, which will be published by Doubleday and Co. later this month.



# ADRIFT ON AN ICE FLOE

by Lucille M. Showalter



One hundred years ago this month, an Eskimo girl from Groton, Connecticut, drifted thousands of miles on an Arctic ice floe, frightened and far from home. She was part of the 1871 expedition of the USS *Polaris*, searching for the North Pole. Bad luck had befallen the *Polaris*: her Captain died and was buried in the frozen Arctic, and the ship was sinking. Her crew had divided into two parties, one with the sinking ship, the other lost on the drifting ice floe.

Memories of her Groton home and friends at North Lane School haunted the thoughts of "Punna" Ebierbing, the six and a half year old Eskimo girl. With her parents and the separated crew, she struggled with starvation, storm and cold on the drifting floe as it carried them more than 1200 miles in 190 days during the long Arctic winter night.

Then came one night of terror when the sleeping Punna, covered by muskox skins in the shielding darkness of her father's igloo-shelter on the floe, suddenly was aroused from her fitful slumbers by the alarmed sound of her father's voice. "I have given Captain Tyson our spare revolver,"

he whispered excitedly to his wife. "There is danger for Punna and for Hans' three children if Hans and I do not soon catch another seal or bear for food. Men who are starving will do anything! None of us are safe!" Punna heard his voice falter as he added, "... and Eskimos have the most to fear!"

Quivering beneath the musk-ox skins, a broad brown face appeared with startled black shining eyes and matted thick, straight black hair. These were all that could be distinguished of Punna from the bulk of her fur wrappings. Even her thick hair was partially hidden by a fur cap with its dangling tails. Her stirring went unnoticed by her excited parents. But like a drowning man's thinking on his life's previous history, Punna began to think in a childish fashion of the events of her life that had preceded this journey.

Groton was the place she remembered best as "home", although her birthplace was Igloodlik of Cumberland Inlet in the Arctic. Her real parents were Geeleekum and Pukining. Punna's adoption by Eskimo guides Hannah and Joseph Ebierbing

was arranged by Arctic enthusiast and explorer Charles Francis Hall, the recently expired commander of the *Polaris*. Didn't she once hear someone say that her natural parents had "bartered her in trade for a sled, some shirts and knives"?

Hall, like a "great white father" to Hannah and Joe, had been affectionate and kind to Punna. She tried to grasp for a moment that he was "dead", but it was too difficult for her to comprehend. Neither could she understand the arguments amongst the crew or meaning of words like "mutiny" or "suspected murder". She remembered only that she was afraid and that her mother had cried softly as they had followed the drawn sled bearing the body of Captain Hall to his burial, accompanied by lanterns in the Arctic darkness.

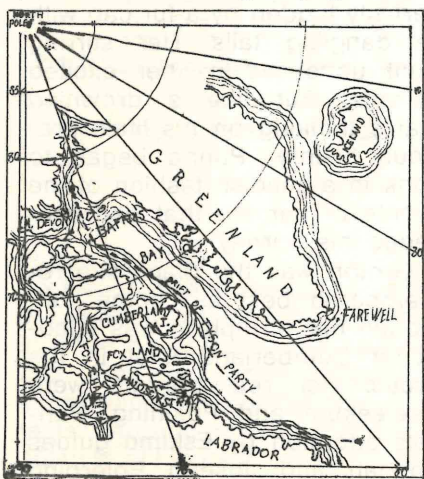
Where had the ship *Polaris* gone? Where was its new commander, Captain Sidney Budington? Did he and the rest of the crew drown with the ship as some of the men were saying? Captain and Mrs Budington were the Ebierbing's Groton neighbors and closest friends. The captain had first met Hannah and Joe in 1851 on a whaling voyage with



"Punna" Ebierbing

New Londoners to Cumberland Inlet. On a return trip in 1860, he had introduced them to Captain Hall. They returned with him on Budington's whaling vessel, the *George Henry*, to New London Port and Groton.

How happy Punna had been to accompany Hall's expedition on this adventure to the North Pole! Her mother had cried as they left Groton. Didn't she think they would ever return? How very famous were her parents, Hannah and Joe! They had once visited Queen Victoria and Prince Albert in England. They had been exhibited in many lecture halls throughout the United States on Captain Hall's speaking tours. Punna herself had been with them when they visited President Ulysses Grant in the White House, and when they had danced at a great Washington Ball. Wasn't the world waiting for them to discover the North Pole with Captain Hall? All of her school friends were waiting to hear about it!



Drift of Tyson Party



Now they would never find the Pole. What would her friends at North Lane School in Groton think of "floating on an ice floe"? The men said the floe was nearly circular, about four miles across. Its surface was broken up here and there by hillocks of ice, some as high as thirty feet, and pitted by small ponds from the previous summer thaw. The floe had drifted down from the narrow Smith Sound, southward into the open waters of Baffin Bay. As the ice would begin to break, they said that the floes would begin to grow smaller and it would be necessary for them to keep moving quickly from one floe to another. But violent winds now swept the Bay. There was but little raw meat and animal blood to eat and drink. Food and fuel were hard to find. All the sled-dogs had already been eaten, and only one boat was left after chopping the others for fuel.

Do men eat Eskimo children? Will I ever see my friends again? Will I be home in time for my seventh birthday? These thoughts

troubled her mind as Punna returned to her fitful slumbers on the ice floe. A gravestone dated March 18, 1875 in the Groton cemetery near her home and school, tells the rest of the story: ". . . she was a survivor of the *Polaris* expedition . . . picked up with nineteen others from an ice floe, April 30, 1873."

On this 1873 date, news of the expedition's disaster reached the outside world as Tyson's party on the ice floe was rescued by the steamship sealer *Tigress* off Newfoundland. The Budington party was rescued shortly thereafter from their refuge in Life Boat Cove by the Scottish whaler *Ravenscraig*. All but Commander Hall had survived the ordeal. Joe, Hannah and Punna attempted to resume their family life in Groton and Punna again played with her friends at school who now viewed her fame with amazement and awe. She did not, however, overcome the severe rigors of her Arctic experiences and died from them, eighteen months later, in 1875. Her sorrowing mother fol-



Hannah and Joe Ebierbing

lowed her death on December 31, 1876. After a last solemn visit to the graves of his wife and daughter, Joseph Ebierbing returned forever to the Arctic regions of his birth.

•   •   •

Lucille M. Showalter is known for her free lance research and writing on New London history. She also teaches local history in the New London schools.

Note: The Ebierbings preferred to be known as "Innuits" rather than "Eskimos". "Punna", in their language, is the designation for "little girl". Although called variously "Punna" and "Punny" by her family and friends, Punna's Christian name was "Sylvia Grinnell Ebierbing" after the daughter of Arctic exploration's great benefactor, Mr. Henry Grinnell of New York.

## AUDUBON WILDLIFE FILM

Sunday

February 18, 1973

Walter J. Breckenridge

"Migration Mysteries"

From the first recorded reference to bird migration in the Bible to present day scientific study, Dr. Walter J. Breckenridge illuminates this fascinating subject with full color motion pictures. Different types of migration patterns are examined, experiments discussed, and the numerous hazards outlined. Among the many species shown are the manx shearwater, Laysan albatross, eider duck and lesser sandhill crane. A unique and absorbing film program.

3:00 P.M.

Palmer Auditorium  
Connecticut College







# THEN AND NOW

## THAMES SCIENCE CENTER

by Barbara Kashanski

THEN (in April 1954) the Thames Science Center was called the New London County Children's Museum. Its first headquarters were the first floor of Strickland House at 168 Mohegan Avenue, New London. Although dreams and plans for a children's museum had been materializing since 1949, it wasn't until the spring of 1954 that cleaning, painting, and remodeling were begun. Soon exhibits were prepared and activities planned, and the doors were opened to children. Subjects for exhibits ranged from natural history to anthropology to local history. Most of the programs were conducted after school and on weekends. Many junior clubs including a coin club, star-gazer club, nature club, and doll club were formed.

The guiding force and spark plug behind the museum in those early days was Mrs. Eva Butler, a remarkable, energetic lady who was herself a walking encyclopedia. She was an anthropologist, archeologist, naturalist and authority on the Indians who once inhabited southeastern Connecticut. What better person to start a children's museum! The main sponsor of the Children's Museum then was the New London and Providence Doll Club. They

contributed generously financially, and its members contributed many hours of volunteer service. The Exchange Club was also an early sponsor and helped to get the new museum under way.

It wasn't too many years before it was evident that the organization had outgrown its quarters. The search was on for a larger building. In the summer of 1960, one was found at 622 Williams Street: a delightful old building, once a motorcycle shop, dress shop, antique shop, and tea house. It had a large basement and attic area for storage of the museum's growing acquisitions, two large floors for exhibits and activities, a back room for offices and supplies.

In November of 1960, the New London County Children's Museum moved to its new headquarters. Again renovations were necessary to comply with safety and fire regulations. Although the annual Christmas Bazaar was held there in December, it wasn't until April of 1961 that a full program got under way. Mrs. Butler, by that time, was devoting her energies to fulfilling another cherished dream—the establishment of the Tomaquag Indian Museum in Ashaway, R.I. The new director was hired, with a good back-

ground in the natural sciences, thus setting the trend toward today's Center.

On June 29, 1961, the name of the organization was changed to the Thames Science Center. Why? Formerly, exhibits, programs, and activities were geared to attract just children of elementary school age. By changing the name, it was hoped to attract people of all ages. Also it was hoped that the new name would attract support and participation from the many institutions of higher learning in the area as well as from the many scientific enterprises.

Growth, again, was the name of the game for the next few years. Teaching contracts with area schools were established. The popular field trip program for schools was initiated, using the Connecticut Arboretum as our field trip area. The annual Nature Festival began in the rustic old headquarters, as did publication of the *Naturalist Notebook*. Growing pains were again felt by the mid-60's. The old building was developing ailments that would be very costly to cure: freezing pipes and leaking roof and weak floors!

So that takes us to NOW. On September 13, 1969, groundbreaking ceremonies for the present building took place on Arboretum land off of Gallows Lane. On November 1, 1970, our unique new home was dedicated. With the extended facilities, especially the classroom, new activities have begun and old ones have grown. NOW as THEN the Thames Science Center is growing, striving for a quality environment through education, hoping to continue its services to the people of South-eastern Connecticut for many years to come.

# MYSTIC:

When early white man arrived, the Pequot Indians were in possession of the land between the Connecticut River and Weehaupaug Creek. This span of shore line was approximately forty-five miles long and included the Mystic River area. Fifty years earlier the Pequots had crossed from the Hudson River area and had conquered the peaceful Connecticut Mohegans, Nameaugus and Nantanticks. Additional conflict during the years 1630-1633 between the Pequots and the Rhode Island Narragansetts enabled the Pequots to extend their boundaries ten miles to the east beyond the Pawcatuck River.

On the night of June 5, 1637, the Pequots were slaughtered by Major John Mason and his army. With the defeat of these Indians, the territory between the Pawcatuck and Thames Rivers was opened up to white settlement. Mason was considered a hero for his exploits, and in 1651 was granted one hundred acres of land on the mainland, in addition to the one hundred acre island he had previously been given.

In order to clear the land for farming, virgin forest was cut. Many of the trees were used for building shelters or ships. Others were burned where they stood. Once the land was cleared of trees, another major task faced the settlers: removing the many



# busiest seaport



by Frank R. Haeni

large rocks left behind by the passing of the last glacier. The stone walls that still border the hilly fields and woods stand as mute testimony to these early farmers' efforts to gain sustenance from the land.

Early exploration by Miles Standish found no important natural resources in New England, except fish and ship timber. Local tradition holds that shipbuilding began as early as 1661, a vessel for the West Indies trade. The details of this story have not been verified.

The first documented record of shipbuilding at the head of the Mystic is that of two shipyards in the pastorate of Rev. Timothy Wightman in 1757. This is extremely remarkable because at that time the whole township had only two-dozen houses.

Shipbuilding in Mystic spanned the greater part of three centuries, with the greatest activity during the period of 1850 to 1870. During this time, Mystic produced a greater tonnage of ships and steamers than any other place in America, if not in the world.

Mystic also played an important role in the whaling industry. The earliest account of whaling in the New World as done by the Indians was described by Captain George Weymouth in 1605. His account tells of how the Indians used a bone "harping iron,"

attached to a rope of woven bark. After harpooning the whale, the Indians clustered around the whale in their canoes and killed it with arrows. Mystic became a whaling port in 1832, when George Churchill sailed the ship *Bingham* into the South Atlantic Ocean. In the following thirty years a total of twenty-eight vessels made 102 voyages out of the tiny seaport. The gross total value of whale oil and bone amounted to over \$2,675,000.00 or roughly \$90,000.00 for each year of whaling. This estimate is probably a conservative one.

The most recent chapter in Mystic's history was the establishment of Mystic Seaport on Christmas Day, 1929. Edward E. Bradley, Carl C. Cutler and Dr. Charles K. Stillman met on that day to sign the papers incorporating the Marine Historical Association as an educational institution.

The number of people who visited the Seaport increased slowly at first. As exhibits developed, the yearly enrollment increased rapidly, reaching a peak in 1969 with 527,413 paid admissions.

A exciting way of travelling from "now" to "then" is a visit to Mystic Seaport, where you can relive the days when it was one of the busiest shipbuilding and whaling ports in the world.

# SURVIVOR OF AN ANCIENT ORDER

Kathie Y. Haeni



*"Playing Possum"*

Opossums belong to the "Ancient Order of Marsupials, or Pouched Mammals," whose best known representative is the Kangaroo. Theirs is a very old family which had its beginnings back in the Mesozoic era, some ninety-three million years ago. Opossums have not changed in appearance since that time. They slowly spread over the continents after the first stages of evolution. Eons later, but still a very long time ago, something exterminated all of the Opossums in North America. But you can not stop the Opossum from traveling, and in the early Pleistocene era they wandered north, across the recently developed Panamanian land bridge, north across Central America from the southern hemisphere.

Although we usually think of the opossum as an animal of the deep south, it ventures much further north. For a retiring animal, the opossum has shown a surprising tendency in recent years to extend its range. It reached Connec-

ticut in 1905 and has been advancing gradually since then. Opossums have been found living as far north as Warner, New Hampshire; Bellows Falls, Vermont; Central Michigan and Central Wisconsin. A convenient habit of wrapping up in leaves or in a hole and becoming torpid for several weeks at a time helps it to ignore the cold winters. During very cold weather, females especially are likely to remain in their dens. The species does not truly hibernate. Body temperature does not vary more than  $3\frac{1}{2}^{\circ}$  F. between the hottest and coldest times of the year.

The opossum is our only native North American mammal that carries her young in a pouch. Very premature, the little opossums are born just thirteen days after their conception. Smaller than a bumblebee, each baby weighs one-fifteenth ounce. Its eyes and ears are still developing in the body covering. The stomach, heart and other organs can be seen through the transparent



body wall, and the tiny legs are nothing but pegs.

Formerly it was supposed that the newly born opossum was picked up by the mother and placed in her pouch. Only within comparatively recent years have biologists learned that it reaches the mothers pouch by dragging itself up by the front paws.

The first trip in the young opossum's life is a hazardous one. During spring, the cold may be chilling. In the forest of hairs of the mother's abdomen, the opening of her pouch is hard to find.

Feeling its blind way, the little opossum must rely solely on instinct to climb higher. If it misses the entrance at first, one of its many brothers or sisters (often between twelve and eighteen), may beat him to the last of the mother's mammae. Crawling into the warm dark pouch, the infants hang onto their mother for weeks without letting go. Their sole concern is food. In the first week their weight increases nearly ten times. At two months of age, they are as big as mice. They leave their mother at the age of about three months to fend for themselves.

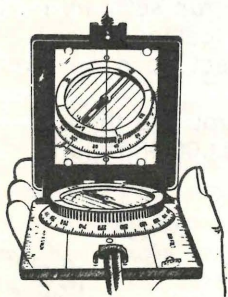
The first conscious effort of each young opossum is probably to find a new home. It is not an

expert digger and looks for a vacant den. Sometimes it repairs and adds more leaves to an old squirrel nest in a treetop. Even a half-grown opossum knows how to gather its nesting material. Filling its mouth with dry grass or leaves, it pushes them under its abdomen to the prehensile tail which is curved in a loop. With the loop full, the opossum moves into its den, dragging the load of leaves with its tail.

When cornered, the opossum may show its teeth. The traditional protection is to feign death, "playing 'possum." It falls limply on one side, shuts its eyes and lolls the tongue from a partly opened mouth. If picked up, it is as limp as a rag. Pulse and heartbeat are greatly reduced. Presumably this is a state of true shock, but if the enemy leaves, its "victim" recovers almost immediately. Apparently these wiles are not very successful, for the opossum's life expectancy is short.

The opossum likes wooded streams habitats. It is quite adaptable, however, and does very well in farming country, provided there is enough cover left for shelter and hunting for food. Even in settled country it is rarely seen, for it sleeps all day and forages at night.

## THAMES SCIENCE CENTER MUSEUM SHOP



For the hiker:

Knapsacks

Compasses

Connecticut Walk Book





## TRAVELLING THROUGH TIME AT DINOSAUR STATE PARK

by Shelley White

As you leave New London, go west on Interstate #95, and at the junction of Route #9 on the west bank of the Connecticut River, head north until you join Interstate #91 north. Continue only a short bit on #91 to exit 23, Rocky Hill. When you turn on to West Street and park, stop—think a minute . . .

You are going to step out into the warm, moist air of the Triassic Period, 200,000,000 years ago. For a single moment in time past you see before you great primitive conifers, ginkgo trees and tall stalks of giant horsetails. It must have rained only a moment ago as the palm-like spreading fronds of the cycads and the ferns on the forest floor are still wet. The humid air off the shallow ponds around you is moist and heavy. There are no flowers, no grasses: it is flat and ferny green as far as you can see.

Wandering slowly about the

shallow ponds is a gathering of small dinosaurs. They slowly brush through the ferns, in and out of the flats and mud . . .

The cold air of February 1973 awakens you. The Triassic Basin of Connecticut is still before you. The tracks and water ripple marks you see before you are the remarkable imprints left in rock and discovered in 1966 about 12 feet below the surface of the ground, by a bull-dozer operator. Today, this *in situ* exhibit of approximately 9,200 square feet of fossil-bearing rock has about 1,000 footprints of 3 species of dinosaurs: *Eubrontes giganteus* (a dinosaur about 25 feet long); *Batrochopus dispar* (ancestor to the crocodile of today); and *Archisaurus sillimani* (a dinosaur about 8 feet long, who walked in a semi-erect pose on strong hind feet).

And you are there . . . what a trip! 200,000,000 years!







## NOTES FROM HERE AND THERE

**RECYCLED PAPER:** There is little point to our efforts in collecting paper for recycling unless people buy more products made from recycled fibers. There are now a wide variety of such products available in many supermarkets: napkins, paper towels, toilet tissue, facial tissues. For this reason, the Thames Science Center is now printing the *Naturalist Notebook* on recycled paper.

**PAPER DRIVE:** The Junior Curators are continuing their highly successful paper drives. Please bring your bundled magazines and newspapers to the Thames Science Center on Saturday, Feb. 24.

**SAVE AN OILY BIRD:** Now from the people who gave you oily birds in the first place, come instructions on how to clean them. The American Petroleum Institute (API) is offering free single copies of a pamphlet on the rescue and care of water birds trapped by oil spills. For a copy of the pamphlet write: American Petroleum Institute; 1801 K. St. NW; Washington, D.C. 20006.

**FUEL SHORTAGES:** It is interesting to note that oil and power companies are requiring curtailment of energy use because of fuel shortages in many different parts of the country. Yet these same companies advertise to encourage increased utilization of fuel and power. Guess who pays the bill?

**QUIET JET:** Lockheed's L-1011 Tri-Star, newest of the wide-bodied jets, is tangible proof that jet aircraft need not be noisy. During its 14-nation promotional tour, the Tri-Star was so quiet that environmental groups opposed to other types of jets said they would not oppose landings by the Lockheed airliner.

**POWER:** Rand Corp. researchers recently jolted California with a report that recommended firm action to curb growth in demand for more electricity. Unless this is done, the state will be faced with blackouts, brownouts, depleted fuel reserves, pollution and the prospect of one nuclear power plant at intervals of every eight miles along the coast.

# FIELD NOTES

## DECEMBER 1972



1972 will go down in history as the wettest year on record since 1878 (when the first weather records were kept). A total of 72.22 inches of precipitation was recorded, beating the old record of 72.09 inches set in 1938. In December, 8.28 inches of this precipitation were added to bring the total past the old record.

**Waterford:** The Wayhill Road area in Waterford produced three interesting observations, including a very late CATBIRD, on the 24th; a MYRTLE WARBLER, December 27; and a RUBY-CROWNED KINGLET, on the 29th. A SHARP-SHINNED HAWK was observed on the Lake Konomoc watershed reservoir on December 29.

**Deep River, East Hampton:** An unusual RED-BELLIED WOODPECKER has been seen at a suet feeder in East Hampton since December 8. A very late CAROLINA WREN was observed in the Deep River area.

**Groton, Noank:** Two KESTRELS have set up their hunting territory along I-95, east of the Gold Star Memorial Bridge. They can be seen hunting and hovering along the median or perched on top of the light poles. Three PIED-

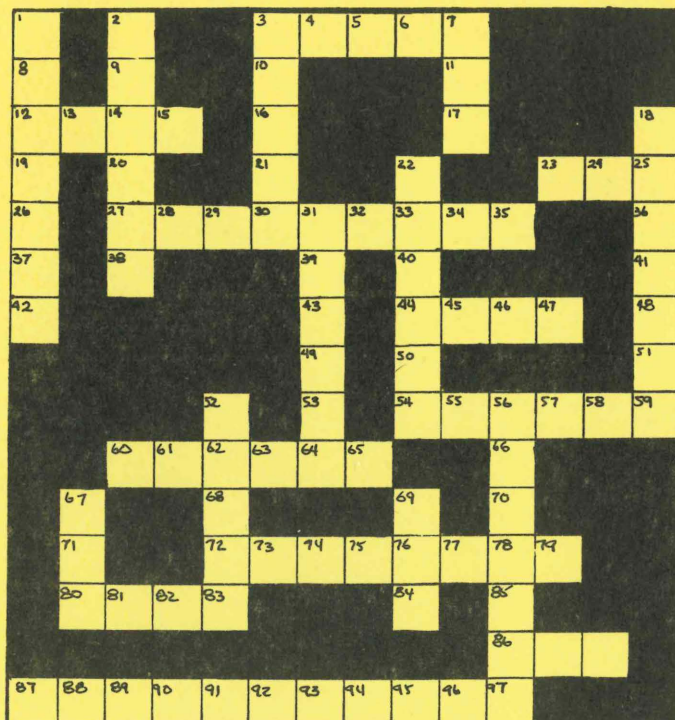


BILLED GREBES were seen swimming down the Mystic River in Noank, December 19. A female BALTIMORE ORIOLE was found in Groton, December 30.

**Mystic, Stonington:** The first of the season's CANVASBACK DUCKS arrived on the Mystic River, December 13. They were later joined by thirty more Canvasbacks and remained throughout the month. Other ducks that were found near the Peace Sanctuary part of the Mystic included RED-BREASTED and HOODED MERGANSERS as well as BUFFLEHEAD and COMMON GOLDENEYE. A GREAT BLUE HERON was seen along River Road, December 28. A MOCKINGBIRD has taken up winter residence in the small woodlot along Bindloss Road in Mystic. A BROWN CREEPER has been seen at the Peace Sanctuary throughout the month of December. Four GREAT BLUE HERONS were found at Barn Island on Christmas Day. The waters south of Barn Island are excellent for wintering waterfowl. The 1972 Christmas bird count will be published separately. Contributors: R. Anderson, Mrs. M. Chapman, T. DeGange, Mr. and Mrs. W. A. Tetske, F. Haeni, K. Haeni, H. Reinsck.



# GEOLOGY: THEN AND NOW



## ACROSS:

3. A lowland area saturated with water.
12. Loose earth or soil of little worth.
23. A bank of sand at the entrance to a river or harbor.
27. Sedimentary rock made up of shells of sea animals.
44. The surface of the earth on which plants grow; life depends on it.
54. The quiet body of water between a barrier island and the mainland.
60. A milky-white crystallized mineral harder than glass; one of the most common minerals in the earth's crust.
72. The inorganic chemical elements found naturally in the earth.
80. A shiny mineral found in granite, pieces of which are paper-thin and flexible.
86. Matter lighter than air.

87. A type of rock laid down in layers or strata; it might contain fossils.

## DOWN:

1. The solid rock of the earth's crust, lying beneath the soil.
2. A metamorphic rock of crystalline, interlocking grains; used in making statues.
3. This stone was once clay or mud; it is flat and crumbles easily.
7. A natural cavity or abyss—at the shaft of a mine.
18. The wearing away of rocks, as by water.
22. The imprints of animals or plants preserved in rock.
31. Metamorphic rock that cleaves into parallel layers.
52. Fluid rock deep in the earth.
56. The science of the structure and origin of the earth.
67. A cut and polished stone.
69. A division of geologic history.



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